

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

DR 1091
NOVEMBER 1979

AD

AD A 082566

LEVEL

METEOROLOGICAL DATA REPORT

19901A Honest John
Missile No. 2042
Round No. 664 AML
14 November 1979

by

White Sands Meteorological Team

DTIC
SELECTED
APR 3 1980
C

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

THIS DOCUMENT IS BEST QUALITY PRACTICABLE.
THE COPY FURNISHED TO DDC CONTAINED A
SIGNIFICANT NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.

DDC FILE COPY

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

80

3

28

039

**Best
Available
Copy**

DISPOSITION INSTRUCTIONS

Destroy this report when it is no longer needed. Do not return to the originator.

DISCLAIMER

The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

The citation of trade names and names of manufacturers in this report is not to be construed as official Government indorsement or approval of commercial products or services referenced herein.

DISCLAIMER NOTICE

**THIS DOCUMENT IS BEST QUALITY
PRACTICABLE. THE COPY FURNISHED
TO DTIC CONTAINED A SIGNIFICANT
NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.**

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM	
1. REPORT NUMBER DR 1091	2. GOVT ACCESSION NO.	3. REPORT HTS. CATALOG NUMBER	
4. TITLE (and Subtitle) 19901A Honest John, Missile Number 2042, Round Number 664 AML, 14 November 1979.		5. TYPE OF REPORT & PERIOD COVERED 12 14	
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER	
8. PERFORMING ORGANIZATION NAME AND ADDRESS 14 ELRADCOM/ASL-DR-1091		8. CONTRACT OR GRANT NUMBER(s) 14 DA Task 1F665702D127-02	
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 11 02	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research & Development Cmd Adelphi, MD 20783		13. NUMBER OF PAGES 13	
15. SECURITY CLASS. (of this report) UNCLASSIFIED		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report)			
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.			
18. SUPPLEMENTARY NOTES			
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19901A Honest John, Missile Number 2042, Round Number 664 AML are presented in tabular form.			

410603

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

JQB

CONTENTS

INTRODUCTION -----	1
DISCUSSION -----	1
TABLES:	
1. Surface Observation taken at 1045 MST at CP-7 -----	2
2. JAL Significant Level Data at 0830 MST -----	3
3. JAL Upper Air Data at 0830 MST -----	4
4. JAL Mandatory Levels at 0830 MST -----	9

INTRODUCTION

19901A Honest John _____, Missile Number 2042, Round Number 664 AML,
was launched from CP-7, White Sands Missile Range (WSMR), New Mexico,
at 1045 MST, 14 Nov 79. The scheduled launch time was
0930 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the CP-7 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33.

b. Upper Air - Air structure data (rawinsonde) was collected at the following Met Sites. Data was collected from surface to 95,000 feet in 500-foot increments.

SITE AND TIME

Jallen 0830 MST

Accession For	
NTIS <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DDC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability	
Dist	Avail and/or special
<u>A</u>	<u>23</u> <u>CP</u>

TABLE 1. Surface Observations taken at 1045 MST,,
14 November 1979, at CP-7, 19901A Honest
John, Missile Number 2042, Round Number 664 AML.

ELEVATION		FT/MSL
PRESSURE	859.2	MB'S
TEMPERATURE	11.8	°C
RELATIVE HUMIDITY	48	
DEW POINT	1.1	°C
DENSITY	1046	GM/M ³
WIND SPEED	Calm	KTS
WIND DIRECTION		DEGREES
CLOUD COVER	3	AC
CLOUD COVER	1	Cs
CLOUD COVER	1	ci

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

SIGNIFICANT LEVEL DATA
310030154
JALAN

TABLE 2

STATION ALTITUDE 4051.00 FEET MSL
14 NOV. 79 0830 HRS WSI
ASCC 510.00. 154

PRESSURE STATION ALTITUDE MILLIBARS (IN. HG)	TEMPERATURE AIR DEWPOINT WINDS SECTIONAL	REL. HUM. PERCENT
65.0	4.0	41.0
65.5	5.9	33.0
66.0	5.6	32.0
66.4	6.2	32.0
67.0	3.1	48.0
67.4	-0.5	42.0
67.8	-1.9	42.0
68.2	-2.7	19.0
68.6	-2.4	15.0
69.0	-2.9	20.0
69.4	-2.0	45.0
69.8	-2.7	34.0
70.2	-3.5	45.0
70.6	-3.4	29.0
71.0	-3.8	34.0
71.4	-4.1	49.0
71.8	-4.0	35.0
72.2	-4.1	38.0
72.6	-4.2	
73.0	-4.3	
73.4	-4.4	
73.8	-4.5	
74.2	-4.6	
74.6	-4.7	
75.0	-4.8	
75.4	-4.9	
75.8	-5.0	
76.2	-5.1	
76.6	-5.2	
77.0	-5.3	
77.4	-5.4	
77.8	-5.5	
78.2	-5.6	
78.6	-5.7	
79.0	-5.8	
79.4	-5.9	
79.8	-6.0	
80.2	-6.1	
80.6	-6.2	
81.0	-6.3	
81.4	-6.4	
81.8	-6.5	
82.2	-6.6	
82.6	-6.7	
83.0	-6.8	
83.4	-6.9	
83.8	-7.0	
84.2	-7.1	
84.6	-7.2	
85.0	-7.3	
85.4	-7.4	
85.8	-7.5	
86.2	-7.6	
86.6	-7.7	
87.0	-7.8	
87.4	-7.9	
87.8	-8.0	
88.2	-8.1	
88.6	-8.2	
89.0	-8.3	
89.4	-8.4	
89.8	-8.5	
90.2	-8.6	
90.6	-8.7	
91.0	-8.8	
91.4	-8.9	
91.8	-9.0	
92.2	-9.1	
92.6	-9.2	
93.0	-9.3	
93.4	-9.4	
93.8	-9.5	
94.2	-9.6	
94.6	-9.7	
95.0	-9.8	
95.4	-9.9	
95.8	-10.0	
96.2	-10.1	
96.6	-10.2	
97.0	-10.3	
97.4	-10.4	
97.8	-10.5	
98.2	-10.6	
98.6	-10.7	
99.0	-10.8	
99.4	-10.9	
99.8	-11.0	
100.2	-11.1	
100.6	-11.2	
101.0	-11.3	
101.4	-11.4	
101.8	-11.5	
102.2	-11.6	
102.6	-11.7	
103.0	-11.8	
103.4	-11.9	
103.8	-12.0	
104.2	-12.1	
104.6	-12.2	
105.0	-12.3	
105.4	-12.4	
105.8	-12.5	
106.2	-12.6	
106.6	-12.7	
107.0	-12.8	
107.4	-12.9	
107.8	-13.0	
108.2	-13.1	
108.6	-13.2	
109.0	-13.3	
109.4	-13.4	
109.8	-13.5	
110.2	-13.6	
110.6	-13.7	
111.0	-13.8	
111.4	-13.9	
111.8	-14.0	
112.2	-14.1	
112.6	-14.2	
113.0	-14.3	
113.4	-14.4	
113.8	-14.5	
114.2	-14.6	
114.6	-14.7	
115.0	-14.8	
115.4	-14.9	
115.8	-15.0	
116.2	-15.1	
116.6	-15.2	
117.0	-15.3	
117.4	-15.4	
117.8	-15.5	
118.2	-15.6	
118.6	-15.7	
119.0	-15.8	
119.4	-15.9	
119.8	-16.0	
120.2	-16.1	
120.6	-16.2	
121.0	-16.3	
121.4	-16.4	
121.8	-16.5	
122.2	-16.6	
122.6	-16.7	
123.0	-16.8	
123.4	-16.9	
123.8	-17.0	
124.2	-17.1	
124.6	-17.2	
125.0	-17.3	
125.4	-17.4	
125.8	-17.5	
126.2	-17.6	
126.6	-17.7	
127.0	-17.8	
127.4	-17.9	
127.8	-18.0	
128.2	-18.1	
128.6	-18.2	
129.0	-18.3	
129.4	-18.4	
129.8	-18.5	
130.2	-18.6	
130.6	-18.7	
131.0	-18.8	
131.4	-18.9	
131.8	-19.0	
132.2	-19.1	
132.6	-19.2	
133.0	-19.3	
133.4	-19.4	
133.8	-19.5	
134.2	-19.6	
134.6	-19.7	
135.0	-19.8	
135.4	-19.9	
135.8	-20.0	
136.2	-20.1	
136.6	-20.2	
137.0	-20.3	
137.4	-20.4	
137.8	-20.5	
138.2	-20.6	
138.6	-20.7	
139.0	-20.8	
139.4	-20.9	
139.8	-21.0	
140.2	-21.1	
140.6	-21.2	
141.0	-21.3	
141.4	-21.4	
141.8	-21.5	
142.2	-21.6	
142.6	-21.7	
143.0	-21.8	
143.4	-21.9	
143.8	-22.0	
144.2	-22.1	
144.6	-22.2	
145.0	-22.3	
145.4	-22.4	
145.8	-22.5	
146.2	-22.6	
146.6	-22.7	
147.0	-22.8	
147.4	-22.9	
147.8	-23.0	
148.2	-23.1	
148.6	-23.2	
149.0	-23.3	
149.4	-23.4	
149.8	-23.5	
150.2	-23.6	
150.6	-23.7	
151.0	-23.8	
151.4	-23.9	
151.8	-24.0	
152.2	-24.1	
152.6	-24.2	
153.0	-24.3	
153.4	-24.4	
153.8	-24.5	
154.2	-24.6	
154.6	-24.7	
155.0	-24.8	
155.4	-24.9	
155.8	-25.0	
156.2	-25.1	
156.6	-25.2	
157.0	-25.3	
157.4	-25.4	
157.8	-25.5	
158.2	-25.6	
158.6	-25.7	
159.0	-25.8	
159.4	-25.9	
159.8	-26.0	
160.2	-26.1	
160.6	-26.2	
161.0	-26.3	
161.4	-26.4	
161.8	-26.5	
162.2	-26.6	
162.6	-26.7	
163.0	-26.8	
163.4	-26.9	
163.8	-27.0	
164.2	-27.1	
164.6	-27.2	
165.0	-27.3	
165.4	-27.4	
165.8	-27.5	
166.2	-27.6	
166.6	-27.7	
167.0	-27.8	
167.4	-27.9	
167.8	-28.0	
168.2	-28.1	
168.6	-28.2	
169.0	-28.3	
169.4	-28.4	
169.8	-28.5	
170.2	-28.6	
170.6	-28.7	
171.0	-28.8	
171.4	-28.9	
171.8	-29.0	
172.2	-29.1	
172.6	-29.2	
173.0	-29.3	
173.4	-29.4	
173.8	-29.5	
174.2	-29.6	
174.6	-29.7	
175.0	-29.8	
175.4	-29.9	
175.8	-30.0	
176.2	-30.1	
176.6	-30.2	
177.0	-30.3	
177.4	-30.4	
177.8	-30.5	
178.2	-30.6	
178.6	-30.7	
179.0	-30.8	
179.4	-30.9	
179.8	-31.0	
180.2	-31.1	
180.6	-31.2	
181.0	-31.3	
181.4	-31.4	
181.8	-31.5	
182.2	-31.6	
182.6	-31.7	
183.0	-31.8	
183.4	-31.9	
183.8	-32.0	
184.2	-32.1	
184.6	-32.2	
185.0	-32.3	
185.4	-32.4	
185.8	-32.5	
186.2	-32.6	
186.6	-32.7	
187.0	-32.8	
187.4	-32.9	
187.8	-33.0	
188.2	-33.1	
188.6	-33.2	
189.0	-33.3	
189.4	-33.4	
189.8	-33.5	
190.2	-33.6	
190.6	-33.7	
191.0	-33.8	
191.4	-33.9	
191.8	-34.0	
192.2	-34.1	
192.6	-34.2	
193.0	-34.3	
193.4	-34.4	
193.8	-34.5	
194.2	-34.6	
194.6	-34.7	
195.0	-34.8	
195.4	-34.9	
195.8	-35.0	
196.2	-35.1	
196.6	-35.2	
197.0	-35.3	
197.4	-35.4	
197.8	-35.5	
198.2	-35.6	
198.6	-35.7	
199.0	-35.8	
199.4	-35.9	
199.8	-36.0	
200.2	-36.1	
200.6	-36.2	
201.0	-36.3	
201.4	-36.4	
201.8	-36.5	
202.2	-36.6	
202.6	-36.7	
203.0	-36.8	
203.4	-36.9	
203.8	-37.0	
204.2	-37.1	
204.6	-37.2	
205.0	-37.3	
205.4	-37.4	
205.8	-37.5	
206.2	-37.6	
206.6	-37.7	
207.0	-37.8	
207.4	-37.9	
207.8	-38.0	
208.2	-38.1	
208.6	-38.2	
209.0	-38.3	
209.4	-38.4	
209.8	-38.5	
210.2	-38.6	
210.6	-38.7	
211.0	-38.8	
211.4	-38.9	
211.8	-39.0	
212.2	-39.1	
212.6	-39.2	
213.0	-39.3	
213.4	-39.4	
213.8	-39.5	
214.2	-39.6	
214.6	-39.7	
215.0	-39.8	
215.4	-39.9	
215.8	-40.0	
216.2	-40.1	
216.6	-40.2	
217.0	-40.3	
217.4	-40.4	
217.8	-40.5	
218.2	-40.6	
218.6	-40.7	
219.0	-40.8	
219.4	-40.9	
219.8	-41.0	
220.2	-41.1	
220.6	-41.2	
221.0	-41.3	
221.4	-41.4	
221.8	-41.5	
222.2	-41.6	
222.6	-41.7	
223.0	-41.8	
223.4	-41.9	
223.8	-42.0	
224.2	-42.1	
224.6	-42.2	
225.0	-42.3	
225.4	-42.4	
225.8	-42.5	
226.2	-42.6	
226.6	-42.7	
227.0	-42.8	
227.4	-42.9	
227.8	-43.0	
228.2	-43.1	
228.6	-43.2	
229.0	-43.3	
229.4	-43.4	
229.8	-43.5	
230.2	-43.6	
230.6	-43.7	
231.0	-43.8	
231.4	-43.9	
231.8	-44.0	
232.2	-44.1	
232.6	-44.2	
233.0	-44.3	
233.4	-44.4	
233.8	-44.5	
234.2	-44.6	
234.6	-44.7	
235.0	-44.8	
235.4	-44.9	
235.8	-45.0	
236.2	-45.1	
236.6	-45.2	
237.0	-45.3	
237.4	-45.4	
237.8	-45.5	
238.2		

STATION ALTITUDE 4051.00 FEET MSL
14 NOV. 79 2030 HRS NST
ASCESSION NO. 134

UPPER AIR DATA
3130030134
JALLER

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 3

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION OF WIND DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.0	805.0	4.5	41.0	1109.5	049.0		0.0	1.000264
4500.0	870.9	5.5	36.7	1033.2	050.0			1.000259
5000.0	934.8	6.8	32.0	1040.0	051.1			1.000252
5500.0	999.0	8.0	32.0	1040.0	051.2			1.000248
6000.0	1063.0	9.0	33.8	1020.0	051.2			1.000244
6500.0	1127.0	10.0	34.4	1010.0	050.2	155.5	11.1	1.000242
7000.0	1191.0	11.0	43.0	995.0	049.2	149.0	11.6	1.000239
7500.0	1255.0	12.0	47.7	980.0	048.2	143.0	12.1	1.000236
8000.0	1319.0	13.0	42.3	965.0	047.1	143.0	12.1	1.000230
8500.0	1383.0	14.0	36.1	949.0	046.1	143.0	11.2	1.000224
9000.0	1447.0	15.0	29.9	934.0	045.0	149.0	10.4	1.000218
9500.0	1511.0	16.0	23.7	920.0	044.0	165.1	10.5	1.000212
10000.0	1575.0	17.0	20.4	905.0	044.0	161.2	10.6	1.000207
10500.0	1639.0	18.0	18.5	889.0	044.2	203.0	9.9	1.000203
11000.0	1703.0	19.0	17.1	869.0	044.2	222.4	10.2	1.000199
11500.0	1767.0	20.0	15.8	852.0	044.2	237.0	10.5	1.000195
12000.0	1831.0	21.0	15.4	836.0	043.5	249.0	10.9	1.000191
12500.0	1895.0	22.0	16.2	820.0	042.1	253.0	10.5	1.000187
13000.0	1959.0	23.0	17.1	804.0	040.7	259.0	10.5	1.000183
13500.0	2023.0	24.0	18.0	789.0	039.3	264.0	10.7	1.000180
14000.0	2087.0	25.0	19.8	774.0	037.9	269.0	11.7	1.000176
14500.0	2151.0	26.0	19.7	759.0	036.5	273.0	13.6	1.000172
15000.0	2215.0	27.0	21.9	744.0	035.0	275.0	15.7	1.000168
15500.0	2279.0	28.0	24.8	729.0	033.0	276.0	17.4	1.000164
16000.0	2343.0	29.0	27.0	714.0	032.2	278.0	18.4	1.000160
16500.0	2407.0	30.0	30.7	699.0	030.8	283.0	18.7	1.000156
17000.0	2471.0	31.0	36.6	684.0	029.4	288.0	19.3	1.000152
17500.0	2535.0	32.0	36.6	669.0	027.9	290.0	20.1	1.000148
18000.0	2599.0	33.0	39.5	654.0	026.5	290.0	21.1	1.000144
18500.0	2663.0	34.0	42.4	639.0	025.1	292.0	22.3	1.000140
19000.0	2727.0	35.0	45.7	624.0	023.6	292.0	24.2	1.000136
19500.0	2791.0	36.0	51.1	609.0	021.9	297.0	26.6	1.000132
20000.0	2855.0	37.0	56.5	594.0	020.2	298.0	28.6	1.000128
20500.0	2919.0	38.0	61.9	579.0	018.5	294.0	30.4	1.000124
21000.0	2983.0	39.0	59.2	564.0	017.1	292.0	32.2	1.000120
21500.0	3047.0	40.0	51.2	549.0	015.9	289.0	34.1	1.000116
22000.0	3111.0	41.0	42.4	534.0	015.1	287.0	36.2	1.000112
22500.0	3175.0	42.0	42.4	519.0	013.7	285.0	39.3	1.000108
23000.0	3239.0	43.0	30.6	504.0	012.3	284.0	39.8	1.000104
23500.0	3303.0	44.0	30.2	489.0	010.9	284.0	41.1	1.000100
24000.0	3367.0	45.0	31.7	474.0	009.5	283.0		1.000096

AX WIND DATA INVALID DUE TO MISSING ROSE AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 4051.00 FEET MSL
14 NOV. 79 0830 HRS MSL
ASCENSION NO. 154

UPPER AIR DATA
318030154
JALLU

TABLE 3 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ ALTER	SPEED OF SOUND M/SEC	DIRECTION DEGREES (T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24500.0	405.4	-27.2	33.1	574.1	011.1	201.9	41.7	1.000129
24500.0	397.0	-28.4	35.0	565.0	009.5	279.9	42.1	1.000127
24500.0	388.5	-29.6	37.7	555.6	008.0	270.5	43.5	1.000125
24500.0	380.3	-30.8	40.4	546.5	006.6	277.4	44.8	1.000123
24500.0	372.2	-31.9	43.1	537.5	005.1	270.6	45.7	1.000121
24500.0	364.3	-33.1	45.3	528.7	003.9	279.5	46.6	1.000119
24500.0	355.5	-34.3	48.5	520.0	002.2	279.5	47.4	1.000117
24500.0	346.9	-35.1	43.5	510.0	001.1	279.2	47.9	1.000115
24500.0	341.4	-35.9	36.7	501.3	000.1	279.5	47.5	1.000112
24500.0	334.0	-37.2	35.7	493.1	000.4	277.0	47.3	1.000110
24500.0	326.7	-38.7	36.7	485.3	000.6	277.2	47.4	1.000109
24500.0	319.5	-40.1	37.7	477.7	000.7	270.9	47.7	1.000107
24500.0	312.5	-41.2	27.8**	469.3	000.3	270.5	48.3	1.000105
24500.0	305.6	-42.1	12.6**	460.3	000.1	270.5	48.6	1.000103
24500.0	298.8	-43.1		452.5	000.3	270.1	47.9	1.000101
24500.0	292.0	-44.5		444.8	000.1	279.7	47.6	1.000099
24500.0	285.3	-45.6		437.3	007.4	261.4	48.8	1.000097
24500.0	278.8	-47.2		429.9	005.6	262.7	50.2	1.000096
24500.0	272.5	-48.9		422.0	003.9	262.2	52.1	1.000094
24500.0	266.2	-49.9		415.5	002.1	261.7	53.8	1.000093
24500.0	260.2	-51.3		408.5	000.3	260.9	53.7	1.000091
24500.0	254.2	-52.5		401.0	000.5	260.0	53.7	1.000089
24500.0	248.4	-53.3		394.7	000.9	260.5	54.1	1.000088
24500.0	242.5	-55.0		387.3	003.4	261.0	54.5	1.000086
24500.0	236.8	-56.1		380.1	003.9	260.5	53.9	1.000085
24500.0	231.2	-57.3		373.1	002.4	260.0	53.1	1.000083
24500.0	225.7	-58.4		366.1	000.9	260.0	51.8	1.000082
24500.0	220.4	-59.5		359.4	000.4	278.9	50.1	1.000080
24500.0	215.1	-60.4		352.1	000.5	273.0	48.8	1.000078
24500.0	209.9	-61.2		344.9	007.2	277.9	50.0	1.000077
24500.0	204.8	-62.0		337.9	000.1	277.9	51.2	1.000075
24500.0	199.9	-62.8		331.0	005.0	277.9	51.3	1.000074
24500.0	195.0	-62.0		322.6	005.4	277.9	51.2	1.000072
24500.0	190.3	-62.5		314.4	005.7	270.5	49.5	1.000070
24500.0	185.7	-62.1		306.4	000.0	279.4	47.1	1.000068
24500.0	181.2	-61.3		298.7	000.3	269.5	45.1	1.000067
24500.0	176.8	-61.0		291.1	000.0	261.0	43.0	1.000065
24500.0	172.5	-61.2		283.5	007.2	261.0	42.2	1.000063
24500.0	168.3	-60.0		275.2	005.7	263.3	41.1	1.000061
24500.0	164.3	-59.7		266.1	009.2	264.0	40.1	1.000060

STATION ALTITUDE 4051.00 FEET NSL
14 NOV. 79 0330 HRS MS1
ASCE. S101 NO. 134

UPPER AIR DATA
5130030134
JALLEN

GEODETTIC COORDINATES
33.10712 LAT DEG
106.49511 LONG DEG

TABLE 3 (cont)

GEOMETRIC ALTITUDE NSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ WATER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION (IN) DEGREES (IN)	SPEED KNOTS	INDEX OF REFRACTION.
44900.0	100.4	-59.6		261.9	505.0	205.2	38.7	1.000053
44500.0	150.5	-60.0		255.7	505.8	205.0	37.3	1.000057
43900.0	152.3	-60.1		249.8	506.6	205.0	36.3	1.000056
43500.0	149.1	-60.3		244.0	506.4	205.1	35.7	1.000054
43000.0	145.5	-60.5		238.5	507.9	204.7	35.0	1.000053
42500.0	142.0	-61.7		233.1	507.5	204.4	33.5	1.000052
42000.0	138.6	-61.3		227.8	507.0	204.1	32.0	1.000051
41500.0	135.2	-61.0		222.7	506.0	203.0	30.1	1.000050
41000.0	132.0	-62.0		217.7	506.1	202.9	27.9	1.000048
40500.0	128.6	-61.9		212.5	506.2	202.1	26.0	1.000047
40000.0	125.7	-61.8		207.1	506.4	202.0	25.1	1.000046
39500.0	122.6	-61.7		201.0	506.5	201.9	24.3	1.000045
39000.0	119.7	-61.0		197.0	506.7	202.1	23.1	1.000044
38500.0	116.6	-61.4		192.1	506.8	202.0	21.6	1.000043
38000.0	113.9	-61.3		187.4	507.0	202.4	20.8	1.000042
37500.0	111.2	-61.2		182.8	507.1	202.8	22.3	1.000041
37000.0	108.5	-61.6		178.0	506.7	202.4	23.8	1.000040
36500.0	105.9	-62.0		174.7	506.1	202.5	23.9	1.000039
36000.0	103.3	-62.4		170.0	505.5	202.9	23.4	1.000038
35500.0	100.8	-62.0		167.0	504.9	202.7	22.4	1.000037
35000.0	98.3	-63.1		163.1	504.6	201.0	19.2	1.000036
34500.0	96.0	-63.2		159.2	504.5	200.2	16.0	1.000035
34000.0	93.6	-63.4		155.5	504.3	204.0	15.7	1.000035
33500.0	91.3	-63.5		151.8	504.1	203.1	16.8	1.000034
33000.0	89.1	-63.4		148.0	504.2	203.5	17.5	1.000033
32500.0	87.0	-62.8		144.0	503.1	203.1	15.5	1.000032
32000.0	84.9	-62.1		140.0	503.0	202.0	13.4	1.000031
31500.0	82.8	-61.4		136.2	503.9	205.1	12.5	1.000030
31000.0	80.6	-60.7		132.5	507.8	209.3	12.0	1.000030
30500.0	78.8	-60.7		129.3	507.9	204.4	11.7	1.000029
30000.0	76.9	-61.7		126.5	507.5	203.2	11.8	1.000028
29500.0	75.1	-61.2		123.4	507.1	201.0	12.2	1.000027
29000.0	73.3	-61.5		120.0	506.8	207.7	12.3	1.000027
28500.0	71.5	-61.4		117.9	506.4	209.9	11.0	1.000026
28000.0	69.8	-62.0		115.2	506.1	202.8	9.8	1.000026
27500.0	68.1	-62.2		112.5	505.8	201.9	9.6	1.000025
27000.0	66.4	-62.4		109.9	505.5	207.0	10.6	1.000024
26500.0	64.8	-62.7		107.3	505.2	203.0	11.6	1.000024
26000.0	63.3	-62.9		104.8	504.9	201.2	12.8	1.000023
25500.0	61.7	-63.1		102.4	504.7	200.4	14.0	1.000023

STATION ALTITUDE 4051.00 FEET MSL
 14 NOV. 79 0300 HRS MST
 ASL: S.W. NO. 154

UNF: AIR DATA
 310030154
 JALLEN
 TABLE 3 (cont)

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC METER	SPEED OF SOUND METERS PER SECOND	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
04500.0	00.2	-63.3		1000.0	504.4	209.7	15.3	1.000022
04500.0	00.3	-62.4		97.2	505.5	207.7	15.9	1.000022
05000.0	07.0	-60.3		93.9	506.4	205.9	16.5	1.000021
05000.0	08.0	-59.2		90.7	511.3	205.2	16.0	1.000020
05000.0	09.6	-57.9		83.4	511.0	209.1	12.2	1.000020
05000.0	10.3	-57.0		80.6	510.3	209.0	8.4	1.000019
05000.0	12.1	-55.0		64.7	510.0	307.1	5.4	1.000019
05000.0	18.3	-53.5		62.9	509.3	322.4	2.9	1.000018
05000.0	49.6	-60.1		81.1	508.7	23.5	1.6	1.000018
05000.0	40.4	-60.2		79.2	508.5	03.9	.6	1.000018
05000.0	47.3	-60.4		77.4	508.3	228.9	1.8	1.000017
05000.0	49.1	-59.5		75.6	508.1	231.6	4.2	1.000017
05000.0	45.0	-58.7		73.8	507.8	231.9	5.7	1.000016
05000.0	44.0	-60.0		71.6	508.8	231.1	6.2	1.000016
05000.0	42.9	-59.2		69.9	509.9	230.4	6.7	1.000016
05000.0	41.9	-58.4		65.0	510.9	232.6	6.5	1.000015
05000.0	40.9	-57.7		66.1	511.9	240.1	5.5	1.000015
05000.0	39.9	-56.9		64.3	512.9	250.8	4.6	1.000014
05000.0	39.0	-56.3		62.5	513.7	264.3	4.0	1.000014
05000.0	38.1	-55.2		61.1	513.3	270.7	3.8	1.000014
05000.0	37.2	-54.3		59.7	513.9	269.9	3.7	1.000013
05000.0	36.3	-53.1		57.3	514.0	300.9	3.7	1.000013
05000.0	35.4	-52.0		56.4	514.0	307.0	2.9	1.000013
05000.0	34.6	-50.9		55.5	514.1	317.4	2.2	1.000012
05000.0	33.8	-50.9		54.2	514.2	330.3	1.6	1.000012
05000.0	33.0	-49.3		52.9	514.3	342.0	1.0	1.000012
05000.0	32.2	-48.3		51.6	514.4	.5	.5	1.000012
05000.0	31.5	-47.7		50.4	514.4	45.0	.3	1.000011
05000.0	30.7	-46.7		49.2	514.5	145.5	.5	1.000011
05000.0	29.0	-45.0		48.1	514.6	174.1	.8	1.000011
05000.0	28.3	-44.3		46.9	514.7	184.5	1.2	1.000010
05000.0	26.6	-43.4		45.3	514.8	184.7	2.1	1.000010
05000.0	25.0	-42.4		44.7	514.9	183.2	3.4	1.000010
05000.0	24.3	-41.3		43.7	515.0	182.5	4.6	1.000010
05000.0	23.7	-40.2		42.6	515.1	181.3	5.9	1.000009
05000.0	23.0	-39.1		41.6	515.3	179.3	7.2	1.000009
05000.0	22.4	-38.0		40.6	515.4	177.9	8.5	1.000009
05000.0	21.8	-36.9		39.7	515.5	177.1	9.3	1.000009
05000.0	21.1	-35.9		38.7	515.6	177.6	7.2	1.000009
05000.0	20.7	-34.8		37.9	515.7	178.9	5.0	1.000008

STATION ALTITUDE 4001.00 FEET MSL
 14 NOV 79 0000 HRS MSL
 ASCENSION NO. 154

UPPER AIR DATA
 0100000154
 JALLEN
 TABLE 3 (cont)

GEODETTIC COORDINATES
 33.16712 LAT DEG
 106.49311 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY G/CM ³ METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION (DEGREES TRUE)	SPEED KNOTS	INDEX OF REFRACTION
04,000.0	20.1	-54.7		30.9	575.8	131.7	2.9	1.000008
04,000.0	22.0	-54.0		30.0	575.9	240.9	.9	1.000008
04,000.0	22.3	-54.5		30.2	570.0	323.2	2.7	1.000008
04,000.0	21.0	-54.5		34.3	570.1	322.7	5.3	1.000008
04,000.0	21.0	-54.4		33.5	570.2	322.2	6.8	1.000007
04,000.0	21.0	-54.3		32.7	570.3	329.2	7.2	1.000007
04,000.0	20.1	-54.2		31.9	570.4	324.7	7.6	1.000007
04,000.0	19.1	-53.8		31.2	577.0	321.7	8.0	1.000007
04,000.0	19.2	-53.4		31.4	577.5	321.0	8.0	1.000007
04,000.0	18.7	-52.9		29.0	578.1	321.9	8.0	1.000007
04,000.0	18.3	-52.5		28.9	578.7	322.0	8.0	1.000006
04,000.0	17.0	-52.0		28.2	579.3	329.5	8.4	1.000006
04,000.0	17.5	-51.0		27.5	579.9	341.9	9.4	1.000006
04,000.0	17.1	-51.1		26.8	580.5	351.5	10.0	1.000006
04,000.0	16.7	-50.7		26.1	581.1	353.8	12.4	1.000006
04,000.0	16.5	-50.2		25.3	581.7	0.2	14.1	1.000006
04,000.0	15.9	-49.3		24.8	582.2	11.9	16.0	1.000005
04,000.0	15.6	-49.3		24.2	582.8	10.4	18.0	1.000005
04,000.0	15.2	-48.9		23.6	583.4			1.000005
04,000.0	14.9	-48.4		23.0	584.0			1.000005
04,000.0	14.0	-48.0		22.5	584.6			1.000005
04,000.0	14.2	-47.5		21.9	585.2			1.000005
04,000.0	13.9	-47.1		21.4	585.9			1.000005

STATION ALTITUDE 4051.00 FEET MSL
14 NOV. 79
ASCENSION: NO. 154

MANDATORY LEVELS
31800 JUL 54
JALLEN

TABLE 4

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5148.	5.6	-9.0	32.	9999.0	9999.0XX
800.0	6774.	4.5	-7.6	41.	9999.0	9999.0XX
750.0	8409.	1.6	-11.0	30.	145.4	11.2
700.0	10004.	.1	-20.7	19.	194.4	10.0
650.0	12250.	-1.0	-23.7	16.	250.9	10.7
600.0	14375.	-0.0	-25.0	19.	272.0	13.1
550.0	16536.	-11.2	-25.0	31.	283.5	10.8
500.0	18913.	-16.9	-26.0	45.	294.2	23.8
450.0	21474.	-23.3	-30.5	51.	289.0	34.1
400.0	24234.	-20.0	-38.9	34.	260.0	42.0
350.0	27323.	-35.0	-42.6	44.	279.3	47.9
300.0	30352.	-42.9			277.3	40.1
250.0	34792.	-55.6			280.4	54.0
200.0	39334.	-62.8			277.9	51.3
175.0	42101.	-61.5			281.2	43.1
150.0	45257.	-60.2			285.3	35.8
125.0	48763.	-61.8			282.0	25.0
100.0	52901.	-63.0			202.4	21.5
80.0	58015.	-60.5			270.9	11.9
70.0	60734.	-52.0			302.5	10.0
60.0	63352.	-63.3			289.5	15.4
50.0	67594.	-60.0			352.1	1.8
40.0	72174.	-56.9			248.9	4.7
30.0	76178.	-55.6			173.2	.8
20.0	81995.	-55.0			177.3	9.3
20.0	86022.	-54.2			324.4	7.6
15.0	92912.	-48.6				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

AX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.